



Former Florence MGP Site
553 North Irby Street, Florence, SC

Proposed Plan Fact Sheet Announcement of September 21 Public Meeting

SCDHEC Activities

The South Carolina Department of Health and Environmental Control (the “Department” or “DHEC”) recently completed an evaluation of alternatives to address contamination at the former Florence MGP Site (the “Site”) at 553 North Irby Street, in Florence, South Carolina. Based on this evaluation, the Department has identified a preferred alternative for the cleanup of contamination. This document includes the Notice of Public Meeting, the Notice of Availability of the Administrative Record, and the Department’s Proposed Plan for cleanup of the Site and summarizes the alternatives evaluated by the Department, and the Opportunity to Comment on the Proposed Plan.

Announcement of Public Meeting Thursday, September 21, 2006 at 7:00 pm

DHEC will hold a public meeting on Thursday, September 21, 2006, at 7:00 pm at:

**Williams Middle School
1119 N. Irby Street
Florence, SC**

During the public meeting, the Department will provide information regarding:

- the contamination at the Site,
- the cleanup alternatives considered by the Department, and
- the Department’s preferred alternatives for the cleanup of the Site.

Following the presentation, the Department will answer questions and respond to concerns presented by the public.

Announcement of Comment Period

After the public meeting, a period of 30 days will be available for the public to submit written comments on the cleanup alternatives. **The comment period ends October 22, 2006.** The Department will make a final decision on the cleanup remedy for the Site only after review and consideration of any comments submitted to the Department during the public comment period. The public is encouraged to provide written comments by October 22, 2006, to:

Eric Cathcart, Project Manager
SCDHEC-BL&WM
2600 Bull Street
Columbia, SC 29201-1708

September 7, 2006

Inside this issue:

Notice of Public Meeting 1

Notice of Comment Period 1

Notice of Administrative Record 2

Site Background & Location Map 3

SCE&G’s VCC 3

Investigation Results 4

Soil & Groundwater Evaluation Criteria 4

Evaluation of Alternatives Considered 4,5

Objectives of Remedial Alternatives 6

DHEC’s Preferred Response Alternative 6

DHEC-BL&WM
2600 Bull Street
Columbia, SC 29206

**DHEC's Site
Contact Persons:**

Eric Cathcart

Project Manager
803-896-4045

- can respond to questions regarding historical operations and technical questions regarding the Site

J. Lucas Berresford

Superfund Engineer
803-896-4071

R. Gary Stewart

Section Manager
State Remediation
803-896-4054

Harriet Gilkerson

Section Manager
Superfund Hydrogeology
803-896-4040

Pat Vincent

Community Information Coordinator
803-896-4074

- Can assist with any special needs of the public for the public meeting

Please let DHEC know if you need translation assistance, by calling:

Pat Vincent
803-896-4074

For Our Spanish-speaking
Community:
Se Habla:
866-300-9327

For Our Hearing-Impaired Community:
800-984-4357

The Department may provide interpreters if requested in advance.

**Announcement of the Availability of
The Administrative Record
At The Florence County Public Library**

The Department announces the Administrative Record for the Site will be available for public review after the September 21 Public Meeting. The Administrative Record includes documents that form the basis for the selection of the response/cleanup actions. The Site's Administrative Record is housed at two locations:

1. DHEC's Bureau of Land and Waste Management office at 8911 Farrow Road, Columbia, South Carolina, and is available Monday through Friday, 8:30 am to 5:00 pm by submitting a Freedom of Information Request and receiving an appointment to view the file; and
2. The Florence County Library at 509 South Dargan Street, Florence, South Carolina, and is available Monday through Thursday from 9:00 am to 8:30 pm, Friday and Saturday from 9:00 am to 5:30 pm, and Sunday from 2:00 pm to 6:00 pm.

All interested persons are encouraged to review the Administrative Record located in Columbia and the Florence County Library. The Department requires a written Freedom of Information ("FOI") Request in order for persons to obtain an appointment to review the Site File housed at DHEC. One may use the FOI request form on the Department's website at www.scdhec.gov/administration/foi/index.htm and click on "Request Form (pdf)", or one may send a letter, like the example below:

[Insert Your Full Name]

[Insert Your Full Address]

[Insert Your City, State, Zip Code]

[Insert Your Telephone Number]

Mr. Jody Hamm, FOI Officer

SCDHEC's Freedom of Information Office

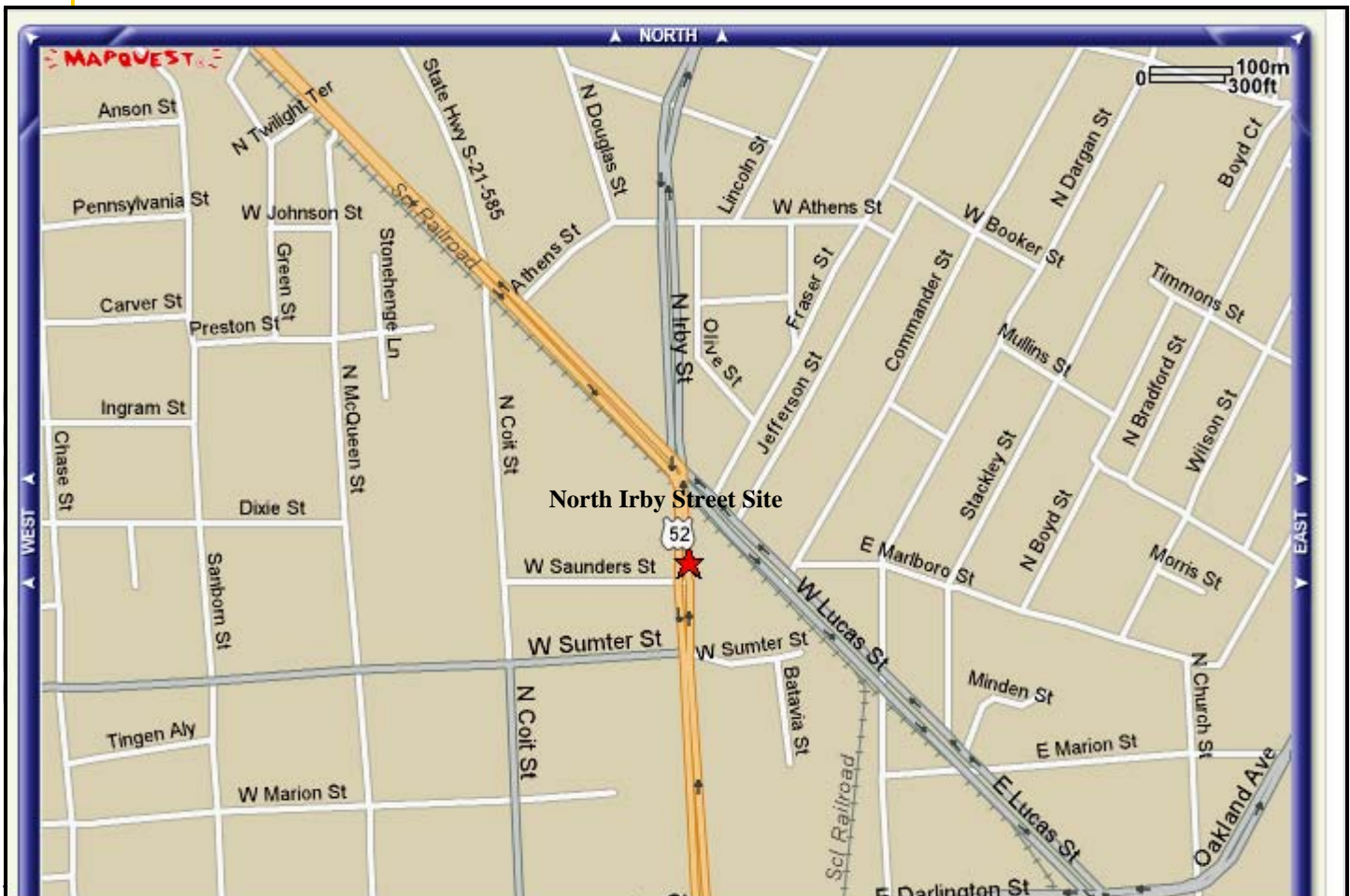
2600 Bull Street

Columbia, SC 29201

Pursuant to the Freedom of Information Act (FOI), I would like to review and/or copy DHEC Bureau of Land & Waste Management's Site File #56445 for the Former Florence MGP Site. Please contact me at [Your Phone Number] to schedule an appointment.

Sincerely,

[Insert Your Name]



Site Background

The Site is located at 553 North Irby Street in Florence, SC and is used as an active natural gas operations and vehicle maintenance facility. The property consists of approximately one acre and is bounded by both residential and commercial properties.

From approximately 1912 until the late 1950s, a manufactured gas plant (MGP) was operated on the property. In 1961, the property was an LP gas storage and distribution plant. Between 1961 and 1990, all of the former MGP structures were removed. Historic aerial photographs indicate that the easternmost portions of the property once extended beneath the current right southbound lane of North Irby Street and adjoining sidewalk. An underground gasoline storage tank was removed in the 1980s from the central portion of the property.

Voluntary Cleanup Contract with SCE&G

Prior to 1999, SCE&G performed soil and groundwater assessment work at the property. In August 2000, SCE&G entered into a Voluntary Cleanup Contract, number 00-5396-RP with the Department. As part of the Contract, SCE&G agreed, among other things, to:

- Develop the Remedial Investigation/Feasibility Study Work Plan, specifically,
 - To define all potential sources of contamination at the Site;
 - To determine the nature and extent of the contamination at the Site; and,
 - To evaluate alternatives for the cleanup/response of the soil and groundwater.
- Reimburse the Department's past costs and future costs at the Site relating to the Work Plan.

Investigation Results

The investigation has determined the extent of the contamination of the Site. Along the eastern fence line (which is along North Irby Street), further investigation is not possible due to the road placement. The majority of the area used for the former MGP operations is also covered with asphalt. The exposure potential to humans is greatly reduced because of these asphalt surfaces.

Sampling of subsurface soil shows sources of coal tar and/or a mixture of coal tar and petroleum in the central and southern areas to depths of 40 feet below ground surface. While the central and northern subsurface soils show petroleum contamination. The Department is concerned because the contaminants have reached both shallow and deeper groundwater levels.

Contaminants detected at the Site **above** the associated Maximum Contaminant Levels (“MCLs”) for onsite groundwater are: benzene, ethylbenzene, toluene, and benzo(a)pyrene; and offsite groundwater are: benzene, styrene, and toluene. The closest surface water is a drainage ditch located approximately 1750 feet to the west of the Site, therefore, surface water is not expected to be affected by the contaminants of concern.

Soil & Groundwater Evaluation Criteria

The Department uses the United States Environmental Protection Agency’s (“EPA”) soil screening levels (“SSL”) to determine if contamination in soil poses a risk to groundwater quality. These soil screening criteria are listed in EPA’s Region IX Preliminary Remediation Goals Tables. For groundwater, the maximum acceptable levels for hazardous substances, pollutants and/or contaminants in a drinking water source are called “Maximum Contaminant Levels” or “MCLs.” At this Site, groundwater sampling results were compared to the MCL standards established by the South Carolina State Primary Drinking Water Regulations, R.61-58.

Evaluation of Cleanup/Remedial Alternatives for Contamination

Alternative 1. No Response Action. Estimated Cost: \$0

Alternative 1 is the No Action Alternative, which is used as a baseline for comparison to other alternatives. Institution controls, cleanup or groundwater monitoring would not be done under this alternative.

Alternative 2. Maintain the Existing Cover, Deed Restrictions and Groundwater Monitoring. Estimated Cost: \$1,894,000.

Maintenance of the existing asphalt cover would occur with Alternative 2. Notice of future land use and drinking water well deed restrictions (“Deed Restrictions”) would be filed with the Florence County Clerk of Court’s office. No action would be taken to cleanup the contaminated groundwater or soil; however, groundwater monitoring would continue for 30 years.

Alternative 3a. Excavate Shallow Soil, Off-Site Treatment of Groundwater, Deed Restrictions, and Groundwater Monitoring. Estimated Cost: \$3,778,000.

Contaminated soils would be removed to seven feet below the soil surface. These contaminated soils are believed to be the source of groundwater contamination. Off-site groundwater would be cleaned up using chemical oxidation. Deed Restrictions would be placed on the property and groundwater monitoring would

Evaluations of Cleanup/Remedial Alternative (continued from page 4)

Alternative 3b. Excavate Soil to Depth of Product Occurrence, Off-Site Treatment of Groundwater, Deed Restrictions, and Groundwater Monitoring. Estimated Cost: \$8,101,200.

Alternative 3b is the same as Alternative 3a except contaminated soils would be removed to a maximum depth of 32 feet.

Alternative 4a. Excavate Shallow Soil, Containment Using Partial Physical Barrier With Limited Groundwater Treatment, Off-Site Treatment of Groundwater, Deed Restrictions and Groundwater Monitoring. Estimated Cost: \$7,612,200.

Contaminated soils would be removed to seven feet below surface. A partial slurry wall/physical barrier would direct groundwater to an opening where treatment occurs and would be installed to a depth of 60 feet. Off-site groundwater would also be cleaned up using chemical oxidation. Deed Restrictions would be placed the property and groundwater monitoring would continue for a period of 30 years.

Alternative 4b. Excavate Shallow Soil, Full Containment Using Physical Barrier, Off-Site Treatment of Groundwater, Deed Restrictions and Groundwater Monitoring. Estimated Cost: \$4,554,600.

Alternative 4b is the same as Alternative 4a except that the slurry wall/physical barrier would be installed completely around the perimeter of the Site. This would greatly reduce or eliminate groundwater movement through the coal tar-impacted area within the saturated zone. The barrier would be installed using the slurry wall method to a depth of 60 feet. Off-site groundwater would be addressed via in-place treatment with chemical oxidation. Deed Restrictions would be placed on the property and groundwater monitoring would continue for a period of 30 years.

Alternative 5. Excavate Unsaturated Zone Soil, Supplemented with on-site Treatment of Groundwater, Deed Restriction and Groundwater Monitoring. Estimated Cost: 8,275,000.

Contaminated soils would be removed down to seven feet. Injector wells would be installed within the contaminated areas onsite and would reduce potential contamination to the offsite groundwater. Deed Restrictions would be placed on the property and groundwater monitoring would continue for a period of 30 years.

Alternative 6. Excavate Unsaturated Zone Soil, Stabilization of Saturated Zone Soils On-Site, Off-Site Treatment of Groundwater, Deed Restriction and Groundwater Monitoring. Estimated Cost: \$6,055,800.

Contaminated soils would be removed down to seven feet. *In-situ* stabilization (ISS) would be used to reduce the coal tar contamination. ISS technology generally involves the mixing of contaminated soil with treatment reagents; which will hinder the contaminants from traveling to the groundwater. Small subsurface soil areas are injected with reagents by using a large-diameter auger in the holes created by the removal of the contaminated soils. This process is repeated as needed. Off-site groundwater would also be cleaned up using chemical oxidation. Deed Restrictions would be placed on the property and groundwater monitoring would continue for a period of 30 years.

Objectives of Cleanup/Remedial Alternatives

The main objectives of the Remedial Action at the Site are to ensure protection of human health and the environment, and compliance with government regulations. The Department uses the following criteria to evaluate alternatives:

1. Protection of Human Health and the Environment,
2. Compliance with State and Federal Regulations,
3. Implementability,
4. Short-Term Effectiveness,
5. Long-Term Effectiveness,
6. Reduction of Contaminant Toxicity, Mobility, and Volume,
7. Cost, and
8. Community Acceptance

Why is the Removal of Soil Necessary?

The Department has determined that a release of hazardous substances has occurred at the Site and may present a danger to the public's health and welfare or to the environment.

Problem #1: Due to contamination in the surface and subsurface soil, there is a direct threat of human exposure by either direct contact, inhalation and/or ingestion by persons working on the property.

Problem #2: The coal tar and petroleum contamination has leaked into the subsurface soil allowing contaminants to migrate into groundwater.

Problem #3: Onsite Groundwater sampling results revealed elevated concentrations of benzene, ethylbenzene, toluene and benzo(a)pyrene and offsite groundwater sampling results show elevated concentrations of benzene, styrene, and toluene.

The removal of the surface and subsurface soil will protect public health and the environment and is necessary to reduce the elevated concentrations and/or to stop the release of hazardous substances from the Site.

DHEC's Preferred Cleanup Alternative

The Department has identified Alternative 3b (*Excavate soil at depth to product occurrence, off-site treatment of groundwater, deed restrictions and groundwater monitoring for both on and off-site areas*) as the preferred alternative for remediation of contamination.

In the event that soil removal is unsuccessful at removing the entire source material from below the Site, additional cleanup actions will be required.

- Groundwater monitoring at wells located on-site and off-site will be conducted to evaluate the benefits of the soil removal. The sampling and analysis will be conducted until cleanup/remedial objectives are met.
- If monitoring indicates that groundwater concentrations are not declining or that contamination is continuing to migrate offsite, then additional actions will be required to treat or remove any remaining source material and to treat groundwater on-site.

Based on current information, this alternative is protective of human health and the environment, meets the remedial goals established for the Site, and minimizes the length of remediation and maintenance. Following implementation of the remedy, if it is demonstrated that contamination in the groundwater migrates to off-site areas and/or levels of contaminants in on-site groundwater increase, the Department may require the implementation of additional remedies.

Still Have Questions about the Site?

The Department strongly suggests that you attend the Public Meeting on September 21. In the meantime, if you have any questions regarding the information contained in this Notice or if you feel any of the information provided is not clear, please contact Eric Cathcart at 803-896-4045, Lucas Berresford, at 803-896-4071, or Pat Vincent at 803-896-4074. You may address correspondence to their attention at SCDHEC-BL&WM-SAR, 2600 Bull Street, Columbia, SC 29201. It is the Department's hope that the public will be able to understand and be aware of what is occurring in their community.

The Site's Mailing List

If you have received this Notice via US Mail, the addressee is on the Department's State Remediation Section's mailing list for any future mailouts regarding the Site. If you would like to be removed from the list or if you would like to be added to the Site's mailing list, please contact Pat Vincent at 803-896-4074 or by email at vincenpl@dhec.sc.gov.

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